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MEDIATING MULTILINGUALISM IN ENGLISH LANGUAGE CLASSROOM: PROSPECTS AND CHALLENGES

A Brief of Microlearning-Based Model in English Language Learning: Potential and Challenges

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Abstract
The trends of microlearning in education, especially in English language teaching has been raised over the last several years. Microlearning has proven to be significant as one of alternative methods for digital native learners who learn according to their needs, anytime and anywhere. It has been considered in relation to e-learning as a tool for usage in a variety of contexts of learning to achieve its goals. The microlearning theories and practices have been explored along with how to create, develop and implement it. Further study is needed to explore the potential and challenges of microlearning usage as a model of English language teaching settings. Thus, this study aims to scrutinize the literature and point out the potential and challenges in the microlearning-based model in ELT. A library research was conducted in this study. The data was collected from reviewing and synthesizing some related empirical sources. The findings identified the potentials and the challenges of microlearning implementation.

Keywords: English language teaching; microlearning-based model; microlearning challenges; microlearning potential

Introduction

Our society is increasingly a knowledge-intensive one as a result of technological innovation and the performance of individuals or groups now largely depends on the acquisition and utilization of pertinent information and appropriate communication tools to meet task objectives. As digital native who are strongly familiar with the use of ICT, 21st century learners have characteristics which are based on the flexibility of learning. They use the small screen of portable technology (e.g. smartphones, laptop or tablets) to learn anytime and anywhere in an informal way, such as while waiting in line for coffee or riding the bus, this can be categorized as mobile microlearning (Grant, 2019 as cited in Mei Lee, *et.al*, 2021).

Microlearning complex knowledge in fragments or bite-size 'nuggets' of information has been applied as a novel intervention to improve an individuals' self-care capabilities (Wang et al., 2020). It is one of the key elements in teacher professional development in the digital era

(p.8) (Wei, Darling-Hammond, and Adamson, 2010 as cited in Iskandar, 2021). In addition, microlearning is the most well-known learning approach used nowadays. Compared to traditional learning, microlearning is thought to be able to increase students' capacity for learning (Putri, 2022). Its usage has been studied extensively in recent years. Moreover, microlearning roughly defined as the delivery of learning sessions or activities of shorter duration than traditional instruction delivery, is one developing paradigm made possible by technology (Hug, 2010). There is a general perception that the new generation will be more technology oriented than previous ones.

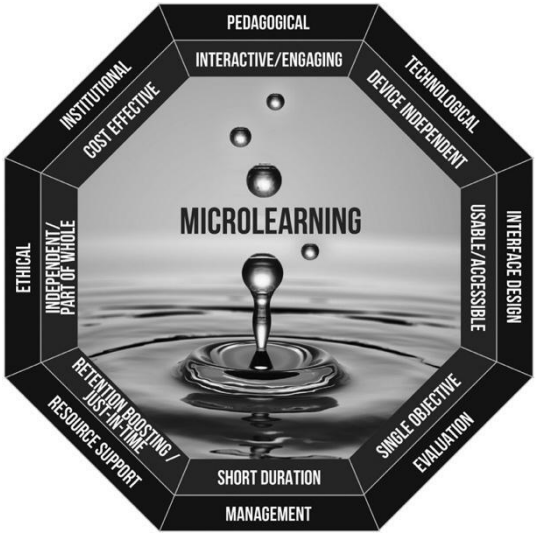
It is generally accepted that microlearning has rapidly been used as learning approaches that meet the digital native learners' needs. Because the entire educational process is divided in small chunks that usually take no longer than a few minutes, microlearning education is often referred to as bite-sized. Mohammed, Wakil and Nawroly (2018) investigated that using microlearning techniques, the effectiveness, and efficiency of learning can be improved and the knowledge can stay memorable for longer periods. They established that the rate of the students' pass showed 84%, 18% average difference from the traditional one. Additionally, a study conducted by Federova et al., (2022), in terms of information technology, microlearning is a useful addition to conventional education, particularly when it is based on the communicative-competence approach. The adaptability of this approach enables the instructor to create his own instructional strategy using fundamental tools like computer training modules via a learning management system, online lessons via Skype or Zoom, and hands-on lessons in the virtual reality lab, as well as discussion of topics and current events in group chats on Viber, Telegram, and WhatsApp. Furthermore, Erradi, Almerekhi and Nahia (2013) presented a mLearning system called LingoSnacks which was designed and implemented to help delivering and accessing the learning content particularly for Arabic language learning as a solution to provide innovative and enjoyable ways to learn language.

Giurgiu (2017) recognized that there are tools and online platforms that are microlearning-based which are commonly used in any sector. In addition, Allela (2021) argued that the use of bite-sized, well-planned modules and short-term learning activities can use common technology-based objects. They are short chunks of text, interactive/non-interactive infographics, PDFs, presentation, short interactive/non-interactive videos, eBooks, flipbooks, audiobooks, short podcasts, recorded webinars, mobile apps, short HTML pages, QR codes, learner generated blog posts, gamification, serious games, virtual reality, augmented reality, step-by-step checklists and quizzes.

Khong and Kabilan (2020) assumed that microlearning contributes to a more methodical response to the four critiques that have been addressed. First, after a thorough reference of the contemporary conceptualization of microlearning, a more organized operational definition of microlearning has been proposed. Second, the model highlights the fact that a true microlearning does not merely divide the learning information into smaller portions but rather does so with deliberate effort. Thirdly, microlearning is a tool for producing macro-level information that is ostensibly more sophisticated and not an end in itself. Last but not least, the model's emphasis on principled pragmatism may help prevent teachers and students from overusing and abusing microlearning.

According to Khan (2001), there are eight elements of an organization's training/learning culture that can be analysed using the E-Learning Framework. The framework can be visualized as the microlearning framework. Guided by the framework, the microlearning developer or creator can design, develop, evaluate, and implement effective learning with the appropriate instructional strategies and delivery methods.

Figure 1. The microlearning perspective on Khan's e-learning framework



The inner octagon of the figure lists characteristics of microlearning that are reflective of each of the eight dimensions represented by the outer octagon of the framework. The octagon's centre is filled with droplets that stand in for bite-sized, single-objective learning objects that can be used independently or as part of a broader learning enterprise. Each dimension stands for a group of concerns that should be taken into account before implementation in order to design an effective learning experience:

Table 1. The microlearning dimensions descriptions of Khan's framework

Characteristics		Descriptions
Pedagogical	Interactive/ engaging	dealing with concerns surrounding the design, development, implementation, and evaluation of microlearning practices.
Technological	Device independent	concerning learners' or employees' access to the tools (hardware, software, infrastructure) required to connect to the microlearning resources.
Interface design	Usable/ accessible	concerning user interface design, simplicity, navigability, usability, and adaptability of learning objects for mobile learning.
Evaluation	Single objective	covering the evaluation of learners, the instruction and learning environment, the planning, design, production, and evaluation teams as well as the processes used in content development; reviewing the planning, design, development, and evaluation processes used in instructional design and evaluating e-learning at the program and institutional levels.
Management	Short duration	addressing issues related to quality control, budgeting, staffing, security, and scheduling of microlearning.
Resource support	Retention boosting/ just-in-time	taking into account every system of technological and human resource support necessary to design and sustain effective online learning experiences.
Ethical	Independent/ part of whole	identifying the moral concerns that must be taken into consideration during the planning, creation, and use of e-learning materials.
Institutional	Cost effective	covering administrative, academic, and learner support service-related topics.

Additionally, Hug (2014) viewed that there are versions which are brought forth by different interpretations of particular microlearning dimensions; (1) time, (2) content, (3) curriculum, (4) form, (5) process, (6) mediality, (7) learning type.

Hamilton, Hall, and Hamilton (2021) predict that microlearning will develop in the following ways to satisfy the shifting demands of workplace skills and learning: (1) shift from obtaining degrees to skill development, (2) change the learning paradigm from Push (where content is assigned) to Pull (workers seek content when needed), (3) use Internet of Things for independent learning at certain times and locations, (4) adapt self-learning and (5) nano-learning, which takes weeks to finish and takes less than a minute to complete. Allela (2021) recommended these following steps of ADDIE for creating microlearning:

Table 2. The stages in creating microlearning, Allela (2021)

Stages	Activities
Analysis	Learner analysis, demand analysis, target analysis
Design	Teaching plan design, exercise design, courseware design and organization
Development	Supporting resources making, micro teaching activities
Implementation	Self-learning, collaborative learning, support and management
Evaluation	Feedback and comments

However, Gore (2022) assumed that ADDIE was a traditional development model which focuses on slowly perfecting a solution. Additionally, Allen (2016) suggested designing e-learning, in terms of microlearning, by implementing the SAM model which stands for the Successive Approximations Model. The three main cyclical interactions of SAM are analysis, design and development. Microlearning is most usually connected with the workplace, however it also arises in other sectors of education. It is frequently credited with the ability to reduce expenses, give employees with a great degree of flexibility in th(Khong & Kabilan, 2022)eir education, and take advantage of deficits in attention span (Eden et al., 2020.).

Despite the existence of a microlearning-based model, researchers have tended to focus on the implementation of microlearning, from the theoretical frameworks, the dimensions and the stages, few researchers have studied the potential and the challenges raised from the accomplishment of microlearning. Hence, additional literature studies of examining the microlearning potential and challenges are needed. This study focuses on exploring the potential and challenges of microlearning in education. Therefore, the research question for this study were formulated as follow:

What are the potential and challenges found in microlearning-based model in English language learning?

Research Methodology

This library-based research reviewed some studies, researches or literature that address the microlearning potential and challenges in English language learning. There were 20 more empirical sources from 2006 to 2022. Additionally, the data was collected through computer search of some databases. Then, after collecting the information, the researcher reads and analyses the sources to find comprehensive information. The sources were articles, books and webpages that were analysed and synthesized in order to make connections among the information of potentials and challenge of microlearning.

Findings and Discussion

Due to its nature, microlearning enables the student to absorb a brief but significant specified unit of knowledge that does not necessitate the immediate consumption of more learning units and can be finished whenever, wherever, and on any device of the learner's choice. Compared to the conventional learning approaches, microlearning could have a variety of potentials. According to Allela (2021) microlearning lessons often have a modest capacity and offer the overall benefit of a defined theme and targeted emphasis. The potentials in teacher training are:

- *Abundant digital resources*: the use of new educational technology, and new trends in e-learning which can be deployed, curated, accessed and shared by the users on multiple devices and tools they are familiar with.
- *Reducing cognitive overload*: in processing the information, the human brain has a limited capacity (Sweller, 1998). This can be driven by absorbing microlearning lessons which have ten minutes as the ideal absorption.
- *Self-paced learning*: because the learners can control what, when, and why they are learning, they can reference the contents as often as they wish.
- *Learner-led*: Using collaboration tools, students can benefit from working together and learning from group members who are subject matter experts.
- *Savings on cost and time*: lot of technology that supports microlearning is free to be accessed and is quick to be produced.
- *Accurate and reusable knowledge*: the teacher trainers can review the teaching content and edit out redundant information to ensure accuracy and simplicity. Additionally, it can monitor user activity, involvement, and feedback.
- *Feedback and discussion*: Microlearning encourages active collaboration through both synchronous and asynchronous channels.
- *Just-in-time:* Microlearning can be created to achieve a particular learning objective and assist students in using what they have learned in the workplace.

Microlearning gives learners access to brief, asynchronous lesson content that they may access anywhere and whenever it's convenient for them, all without requiring a substantial time commitment to finish. This eliminates the need for workers to travel to a specific location to study and prevents the disruption of the workday caused by long training modules, which reduces lost productivity time. Those who were previously sceptical about the viability of

finishing challenging courses may now be encouraged to learn thanks to this more flexible method of instruction.

Besides the potentials raised in the teachers training, it also has the potential for the learners' perspectives. Colman (2020) argued that because microlearning provides quick access to fundamental knowledge and abilities, learners adore it. Because it enables them to create high-quality training fast and affordably, instructional designers appreciate it. The potential benefits for the learners and the learning process are:

- *Improved learning retention*: Because it enables students to quickly design concentrated, memorable training activities and assessments that reinforce information, microlearning is the perfect countermeasure to the average learners' forgetfulness.
- *Better learner satisfaction*: For instance, BH Media, which owns and runs 119 newspapers in the US, received favourable feedback from their staff that showed almost universal satisfaction after establishing a unified microlearning-based training for sales professionals. 98 percent of participants endorsed the idea that the information was pertinent and instantly applicable to their everyday jobs.
- *Faster learning*: Because microlearning modules are so much shorter than conventional eLearning courses, learners can finish faster.
- *Raised-engagement:* The fact that microlearning works well with how our brains assimilate information is a big part of its attraction. Only necessary knowledge and abilities are covered in well-written microlearning, saving learners' time from unimportant information or exercises.
- *Reduce development time and cost:* this can be beneficial for the learners too, they can save time by completing courses faster.
- *Learning culture support:* Microlearning is an excellent technique to encourage a culture of learning since it is made to be available whenever it is needed and is simple to distribute.
- *Boosted learner efficiency:* microlearning courses concise design allows for quick learning and return to work so that students are prepared to use what they have learned to complete the current assignment. The most effective technique for your learners to acquire specialized knowledge is through microlearning, which concentrates on one subject at a time.

Nevertheless, although microlearning offers numerous potential opportunities for a range of conditions as mentioned above, it is not without flaws that make it inappropriate for a

number of situations. The challenges emerged are not only for the teachers, but also for the learners as the target. Its lack of structure, requirements for computer literacy, chances for work to be performed inauthentically, security issues, and the presence of technological complexity issues rank as factors that are against the adoption of microlearning (Eden et al., 2020). They also added that being technologically reliant as a distribution strategy for microlearning can be problematic if the equipment being used to access the information is unreliable. Whatever the issue, content must be accessible to yield any benefit, and with technologically served content, there are many opportunities for the occurrence of a problem that renders the content essentially useless, at least temporarily. Issues could arise with internet connectivity, device failure, or issues with the distribution of the lesson content itself.

Along with these, Allela (2021) proposed three challenges of microlearning. Firstly, the desire to learn for oneself is a major factor in microlearning's effectiveness. Poor reception of the microlearning objects may result from the learner's lack of motivation considered as casual learners. Next, the biggest challenge of microlearning is the variety of technology that students (teachers) might not have access to or may not be familiar with. The inability to upload or download files due to a poor Internet connection is another issue with technology. Thirdly, there is the possible risk that learners may fail to draw connections between the different fragments of learning objects to see the overall picture.

In addition to worries about digital literacy, security remains a valid issue, especially for those who may consider themselves to be fairly digitally savvy. When attempting to assure digital security, human error poses a significant risk because many people use the same passwords across many accounts, connect to public WiFi, and leave devices signed in and unlocked when they aren't using them (Ponemon Institute, 2016 as cited in Eden et al., 2020). If security is not maintained, potentially sensitive information may be inappropriately shared, which could lead to further compromise.

Furthermore, McGee has outlined the 3 drawbacks of microlearning that are inevitably a few cases where microlearning is not the one-stop solution; (1) it is not suitable for complex problems or skill development because microlearning experiences are quick, effective reinforcement of knowledge and concepts; (2) sometimes, the material becomes fragmented, it only covers one aspect of the topic or not giving enough attention to others which can make the broader topic; and (3) creating great content takes time and effort.

Conclusion and Suggestion

To sum up, microlearning has been shown to be a highly successful method for enhancing students' capacity for independent learning and encouraging their enjoyment of the English language. The traditional teaching method is not negated by it; on the contrary, it is a useful addition to the traditional teaching method. It is a new learning model, has shown the potential and also raised some challenges.

Through microlearning, learners are spending more time preparing before class and reviewing after class, and they are also participating more actively in class activities. Microlearning offers various learners individualized learning paths that cater to their various learning requirements and enhance their learning effectiveness and efficiency. Microlearning has been considered to help the digital native learners who have gained knowledge anytime and anywhere they want. It also can provide an amount of resources which are accurate and reusable; learner led, provide quick access that can make the learners to be faster, improve learning retention and save cost and time effectively.

On the other hand, microlearning has also given its challenges. Both the learners and the teachers are required to have digital or computer literacy. Moreover, they will rely on technology so this can make them dependent individuals. Technology barriers, like device failure and internet connection might be challenged. Additionally, the learners become casual who lack motivation. Lastly, the content could be fragmented which only has a narrow topic and the process of the content creation is taking much effort and cost.

As the new model, microlearning could be used as the alternative way to replace the traditional ones. The microlearning-based model could be created by the teachers or educators who are required to be able to use it effectively and consider the potential and the challenges raised.

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